

Railroads: old industry still vital in today's economy

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In the early 20th century, annual revenues of railroads constituted the largest industry in America. This is no longer the case, but because of both economic growth and population growth railroad revenue exceeded \$70 billion last year, and railroad employment rose to approximately 180,000, according the Association of American Railroads (AAR).

In *Tracking the economy: an old industry chugs along* (Federal Reserve Bank of Atlanta, *EconSouth*, May–August 2014), writer Charles Davidson describes how railroad companies are adapting to modern technologies and shipping techniques. Using new technology, the intermodal terminal shipping system—which transports cargo via multiple modes of transportation such as trains, trucks, and ships—tracks containers through the use of GPS. There are dozens of intermodal terminals in the Southeast and hundreds across the country, with CSX Transportation—one of two major railroads in the eastern United States—having more than 60.

There are double-container stacked freight trains more than a mile long crossing the country carrying coal, gas, and every commodity imaginable. After severe financial difficulties in the 1960s and 1970s, regulatory reforms helped railroads become more competitive. In the 1980s railroads were freed from the requirement of providing service where it didn't pay. By discarding miles of unprofitable track, railroads now operate 140,000 miles of track, less than half as much as in the mid-1960s. Railroads also consolidated from 106 Class I, or major, companies in 1960 to 7 now. Today, five of those seven companies generate almost 90 percent of total railroad revenue.

Railroads haul the most freight of any form of transport in terms of ton-miles, a measure of cargo volume that considers weight and distance carried. Railroads now haul 40 percent of total U.S. freight, up from 27 percent in 1980, according to U.S. Bureau of Transportation data. Over the course of a year, the average American consumes enough goods to fill nearly three 40-foot-long containers.

Because railroads deliver to every industry, railroad freight is a good economic barometer of cyclical changes. "I think this economy is a lot stronger than we're giving it credit for," says Clarence Gooden, executive vice president of CSX Transportation. "Through May (of 2014), CSX cargo was up 8 to 9 percent over the same period a year ago."

As the composite makeup of the industries serviced by railroads change, intermodal transport systems become more important. Demand to haul coal is slipping. Coal is mainly shipped to electricity-generating plants. Since about 2010, 167 coal-fired power plants closed or have announced closings. Another 183 proposed coal-run plants have been canceled since 2005, according to the Sierra Club. Because of increased antipollution standards and

other cheaper and cleaner sources of fuel (natural gas, solar, wind), demand for coal in United States is decreasing, but Gooden foresees a continuing need for railroads to transport coal to export markets.

Revenue from coal hauling declined nearly \$2 billion, or 25 percent, from 2011 to 2013 while intermodal shipping revenue increased by 15 percent for CSX and Norfolk Southern, according to their financial reports. Despite the substantial reduction in coal hauling, the combined operating income for CSX and Norfolk Southern rose 59 percent from 2009 to 2013.

Because of crude oil and liquefied gas shipments, the volume of chemicals carried by these two major rail lines has increased in the last few years as shale production soared and the Great Plains had a shortage of pipelines. But railroad transport safety concerns and an increase in pipeline construction are likely to reduce that volume despite rail lines' purchases of new rail cars that are better suited to carrying oil. While the future will tell how large a volume of energy commodities railroads will be transporting, there is no doubt that new technologies and new intermodal shipping methods will assist in supplying all industries with everything from soap to lumber.